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10/809,529	03/26/2004	Daisuke Miyauchi	118530	7534

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EXAMINER

KLIMOWICZ, WILLIAM JOSEPH

ART UNIT	PAPER NUMBER
2627	

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/809,529

Applicant(s)

MIYAUCHI, DAISUKE

Examiner

William J. Klimowicz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 6,10,11 and 16-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,14 and 15 is/are rejected.
- 7) ☒ Claim(s) 3,4,7-9,12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I, Specie I (corresponding to Figures 1-12) in the reply filed on September 5, 2006 is acknowledged. The Applicants traverse, stating:

It is also respectfully submitted that the subject matter of all claims is sufficiently related that a thorough search for the subject matter of any one Group of claims would encompass a search for the subject matter of the remaining claims. Thus, it is respectfully submitted that the search and examination of the entire application could be made without serious burden. See MPEP §803 in which it is stated that "if the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions" (emphasis added). It is respectfully submitted that this policy should apply in the present application in order to avoid unnecessary delay and expense to Applicant and duplicative examination by the Patent Office.

See Applicant's response filed on September 5, 2006, pp. 1-2.

This is not found persuasive because the Examiner maintains that the product and process inventions are distinct for the reasons given in the previous restriction requirement, i.e., that the Group I claims 1-15, which are drawn to a thin film magnetic head, classified in class 360, subclass 126, and the Group II claims 16-19, drawn to a method of manufacturing a thin film magnetic head, classified in class 29, subclass 603.07 are *a priori* distinct, each from the other since Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be

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made by another and materially different process (**MPEP § 806.05(f)**). In the instant case the product could be made by a process not requiring the fabrication steps as articulated in the method claims, including but not limited to: vacuum deposition *and/or* plating deposition *and/or* chemical vapor deposition *and/or* plasma enhanced chemical vapor deposition *and/or* physical vapor deposition *and/or* reactive ion etching *and/or* wet etching *and/or* chemical mechanical polishing *and/or* surface abrading *and/or* thermal ablation *and/or* non-sequential method steps which are not promulgated in the process Grouping, *supra*, *and/or* other well known techniques in the art used in manufacturing disk drives and related components used therein, including magnetic heads.

Moreover, because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Moreover still, the Examiner maintains that all that is required to be shown to demonstrate a materially different process or product is “a viable alternative process or product,” and that “[a]llegations of different process or products need not be documented.” See **MPEP 806.05(f)**. The Examiner maintains that the materially different process to make the claimed product of the Applicant, is indeed a viable alternative.

As it pertains to the restriction between the product and process claims, the following should be noted. Where Applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise

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require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with **37 CFR 1.104**. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of **35 U.S.C. 101, 102, 103 and 112**. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained.

Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See **MPEP § 821.04(b)**. Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder**. Further, note that the prohibition against double patenting rejections of **35 U.S.C. 121** does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See **MPEP § 804.01**.

Moreover, the traversal as it pertains to the election of Species I versus Species II-IV is also not found persuasive because the Examiner maintains that each identified Species and/or Invention grouping, as articulated in the previous Requirement for Restriction, would impose a grave and serious burden upon the Examiner. Moreover, in accordance with **37 CFR 1.104**, to the nature of each distinctly grouped Species and/or Invention grouping, the Examiner must

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make a thorough study thereof and a thorough investigation of the available prior art relating to the claimed subject matter of each distinctly identified Species and/or Grouping. The examination for each distinct Specie/Grouping must be complete with respect both to compliance of the application with the applicable statutes and rules and to the patentability of the invention as claimed, in addition to matters of form, including **Title 35 to the United States Code**, sections **101, 102, 103 and 112** to each distinctly grouped invention.

Moreover still, it is noted the process claims are not commensurate in scope with the product claims. That is, the process claim(s), as presently drafted, fail to depend from or otherwise include *all* the limitations of the product claim(s).

Thus, the Examiner has clearly shown that the instant invention can be made by another materially different process(es), and that these delineated processes are indeed a “viable alternative.” In **MPEP 806.05(f)**, which expressly pertains to “Process of Making and Product Made” restriction criteria, it unambiguously states that all that is required to be shown for material difference is “a viable alternative process or product,” and that “[a]llegations of different process or products need not be documented.” See **MPEP § 806.05(f)** for further details.

Because these inventions are **independent or distinct** for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is **PROPER**.

More specifically, as set forth in **MPEP § 803**:

Under the statute an application may properly be required to be restricted to one of two or more claimed inventions only if they are able to support separate patents and they are either independent (**MPEP § 806.04 - § 806.04(i)**) *or* distinct (**MPEP § 806.05 - § 806.05(i)**). [Emphasis in bold italics added].

Moreover as set forth in **MPEP § 802.01**, the meaning of independent “and” distinct within the context of Patent Office restriction policy and practice is articulated as follows:

35 U.S.C. 121 quoted in the preceding section states that the Commissioner may require restriction if two or more “independent and distinct” inventions are claimed in one application. In **37 CFR 1.141**, the statement is made that two or more “independent and distinct inventions” may not be claimed in one application.

This raises the question of the subjects as between which the Commissioner may require restriction. This, in turn, depends on the construction of the expression “independent and distinct” inventions.

“Independent,” of course, means not dependent. If “distinct” means the same thing, then its use in the statute and in the rule is redundant. If “distinct” means something different, then the question arises as to what the difference in meaning between these two words may be. The hearings before the committees of Congress considering the codification of the patent laws indicate that **35 U.S.C. 121**: “enacts as law existing practice with respect to division, at the same time introducing a number of changes.”

The report on the hearings does not mention as a change that is introduced, the subjects between which the Commissioner may properly require division.

The term “independent” as already pointed out, means not dependent. A large number of subjects between which, prior to the **1952 Act**, division had been proper, are dependent subjects, such as, for example, combination and a subcombination thereof; as process and apparatus used in the practice of the process; as composition and the process in which the composition is used; as process and the product made by such process, etc. If section **121** of the **1952 Act** were intended to direct the Commissioner never to approve division between dependent inventions, the word “independent” would clearly have been used alone. If the Commissioner has authority or discretion to restrict independent inventions only, then restriction would be improper as between dependent inventions, e.g., the examples used for purpose of illustration above. Such was clearly not the intent of Congress. Nothing in the language of the statute and nothing in the hearings of the committees indicate any intent to change the substantive law on this subject. On the contrary, joinder of the term “distinct” with the term “independent,” indicates lack of such intent. The law has long been established that

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dependent inventions (frequently termed related inventions) such as used for illustration above may be properly divided if they are, in fact, "distinct" inventions, even though dependent.

Thus, clearly, the restriction is proper if the Examiner shows that the inventions are distinct **or** independent, but not necessarily both independent *and* distinct.

The Examiner *additionally* maintains that each identified Species and/or Invention Grouping, as articulated in the Requirement for Restriction, *supra*, would impose other grave, *serious burdens* upon the Examiner. Moreover, in accordance with **37 CFR 1.104**, to the nature of each distinctly grouped Species and/or Invention Grouping, the Examiner must make a thorough study thereof and a thorough investigation of the available prior art relating to the claimed subject matter of each distinctly identified Species and/or Grouping. The examination for each distinct Specie/Grouping must be complete with respect both to compliance of the application with the applicable statutes and rules and to the patentability of the invention as claimed, in addition to matters of form, including **Title 35 to the United States Code**, sections **101, 102, 103 and 112**, to each distinctly grouped invention.

Moreover, each separately grouped specie/invention must be thoroughly searched, including, but not limited to, various searching fields, inclusive of differing text search strategies and/or queries, determination of anticipation, if any, of uncovered prior art, potential application of the Graham factual inquiries to each distinct specie/invention to review for any indicia of possible obviousness, etc.

Moreover still, as has been held, if there is an express admission that the claimed inventions would have been obvious over each other within the meaning of 35 U.S.C. § 103, restriction should not be required. *In re Lee*, 199 USPQ 108 (Comm'r Pat. 1978).

There is nothing on record, at present, to show that the distinctly grouped species/inventions are obvious variants.

The requirement is still deemed proper and is therefore made **FINAL**.

Claim Status

Claims 1-19 are currently pending.

Claims 1-5, 7-9 and 12-15 have been considered on the merits.

Claims 6, 10, 11 and 16-19 are currently withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Invention/specie, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on September 5, 2006.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

Figure 20 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR

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1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Objection to Abstract

The abstract of the disclosure is objected to because its length exceeds 150 words. See MPEP 608.01(b), which cites 37 CFR 1.72 (b), and states:

A brief abstract of the technical disclosure in the specification must commence on a separate sheet, preferably following the claims, under the heading "Abstract" or "Abstract of the Disclosure." The *abstract* in an application filed under 35 U.S.C. 111 ***may not exceed 150 words in length***. The purpose of the abstract is to enable the United States Patent and Trademark Office and the public generally to determine quickly from a cursory inspection the nature and gist of the technical disclosure. The abstract will not be used for interpreting the scope of the claims.

Emphasis in bold italics added. Thus, the abstract must be amended so as to not exceed the 150 word limit. The Applicant's abstract currently contains 179 words. Correction is required.

Claim Objections

Claims 8 and 12 are objected to because of the following informalities and appropriate correction is required.

The following phrase(s) lack clear antecedent basis within the claim(s), i.e., either the particularly recited passage fails to be properly introduced prior to its appearance at that point in

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the claim or the structure recited in the passage is not an inherent part of or component of the previously recited structure. The lack of antecedence as noted *infra*, is merely formal, since the claims can be understood in light of the instant specification and drawings; the antecedence informalities delineated below do not rise to the level of a rejection under 35 USC 112 2nd paragraph:

(i) Claim 8 (line 4), "said second direction."

(ii) With regard to claim 12 (line 4), the period after the phrase "conditional expression (1)" should be replaced by a colon -- : --, and a period should be inserted at line 9 of claim 12 after the phrase "domain control part."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Oshima (JP 2002-305336).

As per claim 1, Oshima (JP 2002-305336) discloses a thin film magnetic head (1) comprising: a magnetoresistive effect film having a first stacked part (e.g., 23B, 23C, 24, 25, 26, 27) including a magnetic sensitive layer (25) of which magnetization direction changes according to a signal magnetic field from a magnetic recording medium and extending so that width in a first direction corresponding to a recording track width direction of said magnetic

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recording medium is first width (e.g., Tw_2), and a second stacked part (e.g., 23A, 22, 21) having a first antiferromagnetic layer (22) and extending so that the width in said first direction (lateral direction as seen in FIG. 1) is second width larger than said first width (e.g., see the width of layers 23A, 22, 21 in FIG. 1, which have a sizable greater width than the width Tw_2); and a pair of magnetic domain control films having a pair of first magnetic domain control parts (hard bias layers 33) which are disposed so as to face each other at an interval corresponding to said first width (Tw_2) while sandwiching said first stacked part (e.g., 23B, 23C, 24, 25, 26, 27) in said first direction and applying a vertical bias magnetic field to said magnetic sensitive layer (25), and a pair of second magnetic domain control parts (hard bias layers 32) which are disposed so as to face each other while sandwiching said second stacked part (e.g., 23A, 22, 21) in said first (lateral) direction and applying a vertical bias magnetic field to said magnetic sensitive layer (25).

As per claim 2, wherein said second stacked part (e.g., 23A, 22, 21) further has a first magnetization direction pinned layer (e.g., 23A) of which magnetization direction is pinned by said first antiferromagnetic layer (22).

As per claim 5, wherein said pair of first magnetic domain control parts (33) are in contact with said first stacked part (e.g., 23B, 23C, 24, 25, 26, 27) - FIG. 1.

As per claim 14, wherein said pair of first magnetic domain control parts (33) and said pair of second magnetic domain control parts (32) have coercive forces which are different from each other (differing hard bias materials, e.g., see English machine translation at paragraph [0075]).

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As per claim 15, wherein either said pair of first magnetic domain control parts (33) or said pair of second magnetic domain control parts (32) is made of a material containing cobalt platinum alloy (CoPt) and the other pair is made of a material containing cobalt chromium platinum alloy (CoCrPt) (differing hard bias materials, e.g., see English machine translation at paragraph [0075]).

Allowable Subject Matter

Claims 3, 4, 7, 8, 9, 12 and 13 (as well as currently withdrawn claims 10 and 11 because of their dependence upon claim 8) are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

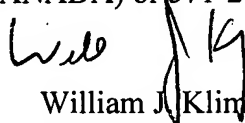
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


William J. Klimowicz
Primary Examiner
Art Unit 2627

WJK